This Amendment responds to the office action dated June 15, 2005.

The examiner has objected to the drawings as failing to comply with 37 CFR 1.84(p)(5) because they include reference characters not mentioned in the description. #14 (Out Tray 1 in fig 1, fig 2, and fig 3), #16 (Tray 2 in fig 3), and #36 (Out Tray 1 in fig 4 and fig 5). The drawings have been amended to remove the surplus characters. Amended drawings are submitted herewith.

The examiner has rejected claim 18 under 35 U.S.C. §101 as being directed to non-statutory subject matter. This rejection is improper in that it fails to recognize the useful, concrete and tangible result of the claim. 35 U.S.C. §101 precludes abstract ideas from patentability, however, claim 18, claims the act of "breaking down said original print jobs," interleaving said sub-jobs" and "printing said sub-jobs," which are useful, concrete and tangible results of the claimed signal. A practical application of an abstract idea is patentable if it produces a useful, concrete and tangible result. *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 47 USPQ2d 1596, 1601-02 (Fed. Cir 1998). The Federal Circuit has held similar software applications patentable when those applications did no more that manipulate numbers for a useful result. *AT&T Corp. V. Excel Comm. Inc.*, 50 USPQ2d 1447, 1452 (Fed. Cir. 1999). In AT&T, the useful result was a modified long-distance telephone bill, in this application; the useful result is interleaved print jobs. The USPTO has long endorsed this type of claim in their training guidelines for computer-related inventions. A computer data signal is typically regarded as equivalent to a computer readable medium, which is generally accepted as

patentable subject matter when it comprises instructions that cause a computer to create a

tangible result. Accordingly, this rejection of claim 18 is inappropriate.

The examiner has rejected claims 1, 2, 4-6, 8-11, 13, and 16-18 under 35 U.S.C. §102(e)

as being anticipated by Takeda (U.S. 6,229,622).

The embodiments of the present invention and the invention disclosed by Takeda are

very different in structure. Takeda teaches a printer-based system that stores print jobs in

designated areas, which it then accesses in sequence to print portions of the jobs sequentially

from each area based on timing or page count parameters. The methods of Takeda require a

special printer with extensive hardware for storing and manipulating print jobs. As such, all the

actions performed in the methods of Takeda occur within the special printer apparatus as shown

in Figure 1.

Embodiments of the present invention, as described in claims 1-18, as amended,

comprise a much different system for accomplishing print job interleaving. These embodiments

comprise a print system component that receives print jobs before they arrive at a printer and

modifies the print jobs before they are sent to a printer. As such, these embodiments may be

used with any printers and do not require the extensive and expensive hardware taught in

Takeda.

Claims 1-3, 5-9, 13, 14 and 16-18 have been amended to more particularly point out this

distinction. Claim 4 has been cancelled. Claims 10-12 and 15 are essentially amended by

dependence on amended base claims.

Claim 1 has been amended to comprise the element of "receiving a plurality of original

print jobs at a non-printer computing device." This element distinguishes the claim from the

teachings of Takeda, which require a specialized printer and internal printer hardware. Claims 2, 3 and 5-12 comprise this element by dependence and are allowable for the same reasons as stated for claim 1.

Claim 13 has been amended to comprise the element of "receiving a plurality of original print jobs at a non-printer, print system component before said jobs arrive at a printer." This element distinguishes the claim from the teachings of Takeda, which require a specialized printer and internal printer hardware.

Claim 14 has been amended to comprise the element of "receiving a plurality of original print jobs at a print system component before said jobs arrive at a printer." This element distinguishes the claim from the teachings of Takeda, which require a specialized printer and internal printer hardware. Claim 15 comprises the same element by dependence and is allowable for the same reasons as stated for claim 14.

Claim 16 has been amended to comprise the element of "a receiver for receiving a plurality of original print jobs before said jobs arrive at a printer." This claim also comprises the element of "a sender for sending said sub-jobs to a printer." These elements distinguish this claim from the teachings of Takeda, which require a specialized printer and internal printer hardware.

Claims 17 & 18 have been amended to comprise the element of "receiving a plurality of original print jobs at a print system component before said print jobs arrive at a printer." These claims also comprise the element of "sending said sub-jobs to a printer in said sequence." These elements distinguish this claim from the teachings of Takeda, which require a specialized printer and internal printer hardware.

Claims 3 and 7 are rejected under 35 U.S.C. §103(a) as being unpatentable over

Takeda (U.S. 6,229,622) and Utsunomiya et al. (U.S. 5,822,500), hereafter referred to as

Takeda and Utsunomiya.

As these claims are both dependent on claim 1, which has been amended, these

claims comprise the limitations of claim 1 as amended. Both Takeda and Utsunomiya

teach methods of interleaving print jobs within a high-end, complicated printing device.

Both of these references require extensive resources within the printer to accomplish their

methods. Claim 1 and claims 3 and 7 by dependence, comprise the element of "receiving

a plurality of original print jobs at a non-printer computing device." This element

distinguishes from the methods taught in Takeda and Utsunomiya and the combination

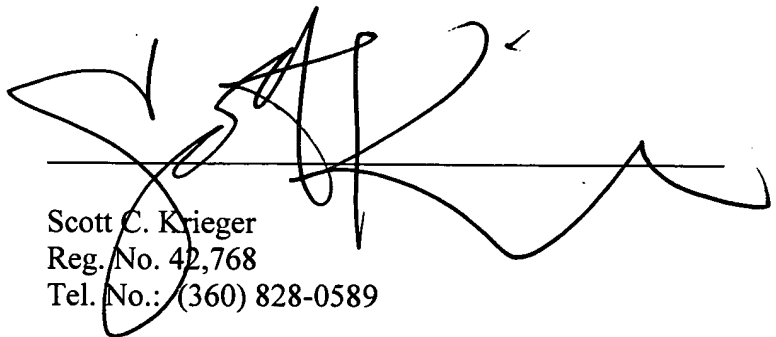thereof. Accordingly, claims 3 and 7, as amended, are not made obvious by these

references.

Claims 12, 14, and 15 are rejected under 35 U.S.C. §103(a) as being unpatentable

over Takeda (U.S. 6,229,622) and Rabjohns et al. (U.S. 5,697,040), hereafter referred to

as Takeda and Rabjohns. Again, both of these references disclose methods of

interleaving print jobs within a high-end, complicated printing device. Embodiments of

the present invention, as claimed in claims 12, 14 and 15 do not require specialized

printers to accomplish their functions.

Claim 12, by dependence on claim 1, as amended, now comprises the element of "receiving a plurality of original print jobs at a non-printer computing device." This element is not taught in the combination of Takeda and Rabjohns.

Claim 14 and claim 15, by dependence on claim 14, have been amended to comprise the element of "receiving a plurality of original print jobs at a print system component before said print jobs arrive at a printer." This element is distinguished from the combination of Takeda and Rabjohns, which teach only print job interleaving methods that are accomplished within a printing device. Accordingly, these claims are now allowable in their amended form.

Based on the foregoing amendments and remarks, the Applicant respectfully requests reconsideration and allowance of the present application.

Respectfully submitted,

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